

SEQUENCE LISTING

<110> CHUGAI SEIYAKU KABUSHIKI KAISHA

<120> Nonhuman animal for constructing antibody and method and system of constructing antibody using the same

<130> C1-A0326P

<150> JP2004-107669

<151> 2004-03-31

<160> 10

<170> PatentIn version 3.1

<210> 1

<211> 1539

<212> DNA

<213> Baculovirus

<220>

<221> CDS

<222> (1).. (1539)

<223>

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tct gcc ttt gcg gcg gag cac tgc aac gcg caa atg aag acg ggt ccg	96		
Ser Ala Phe Ala Ala Glu His Cys Asn Ala Gln Met Lys Thr Gly Pro			
20	25	30	

tac aag att aaa aac ttg gac att acc ccg ccc aag gaa acg ctg caa	144
Tyr Lys Ile Lys Asn Leu Asp Ile Thr Pro Pro Lys Glu Thr Leu Gln	

35	40	45	
aag gac gtg gaa atc acc atc gtg gag acg gac tac aac gaa aac gtg			192
Lys Asp Val Glu Ile Thr Ile Val Glu Thr Asp Tyr Asn Glu Asn Val			
50	55	60	
att atc ggc tac aag ggg tac tac cag gcg tat gcg tac aac ggc ggc			240
Ile Ile Gly Tyr Lys Gly Tyr Tyr Gln Ala Tyr Ala Tyr Asn Gly Gly			
65	70	75	80
tcg ctg gat ccc aac aca cgc gtc gaa gaa acc atg aaa acg ctg aat			288
Ser Leu Asp Pro Asn Thr Arg Val Glu Glu Thr Met Lys Thr Leu Asn			
85	90	95	
gtg ggc aaa gag gat ttg ctt atg tgg agc atc agg cag cag tgc gag			336
Val Gly Lys Glu Asp Leu Leu Met Trp Ser Ile Arg Gln Gln Cys Glu			
100	105	110	
gtg ggc gaa gag ctg atc gac cgt tgg ggc agt gac agc gac gac tgt			384
Val Gly Glu Glu Leu Ile Asp Arg Trp Gly Ser Asp Ser Asp Asp Cys			
115	120	125	
ttt cgc gac aac gag ggc cgc ggc cag tgg gtc aaa ggc aaa gag ttg			432
Phe Arg Asp Asn Glu Gly Arg Gly Gln Trp Val Lys Glu Lys Glu Leu			
130	135	140	
gtg aag cgg cag aat aac aat cac ttt gcg cac cac acg tgc aac aaa			480
Val Lys Arg Gln Asn Asn Asn His Phe Ala His His Thr Cys Asn Lys			
145	150	155	160
tcg tgg cga tgc ggc att tcc act tcg aaa atg tac agc agg ctc gag			528
Ser Trp Arg Cys Gly Ile Ser Thr Ser Lys Met Tyr Ser Arg Leu Glu			
165	170	175	
tgc cag gac gac acg gac gag tgc cag gta tac att ttg gac gct gag			576
Cys Gln Asp Asp Thr Asp Glu Cys Gln Val Tyr Ile Leu Asp Ala Glu			
180	185	190	

ggc aac ccc atc aac gtg acc gtg gac act gtg ctt cat cga gac ggc	624		
Gly Asn Pro Ile Asn Val Thr Val Asp Thr Val Leu His Arg Asp Gly			
195	200	205	
gtg agt atg att ctc aaa caa aag tct acg ttc acc acg cgc caa ata	672		
Val Ser Met Ile Leu Lys Gln Lys Ser Thr Phe Thr Thr Arg Gln Ile			
210	215	220	
aaa gct gcg tgt ctg ctc att aaa gat gac aaa aat aac ccc gag tcg	720		
Lys Ala Ala Cys Leu Leu Ile Lys Asp Asp Lys Asn Asn Pro Glu Ser			
225	230	235	240
gtg aca cgc gaa cac tgt ttg att gac aat gat ata tat gat ctt tct	768		
Val Thr Arg Glu His Cys Leu Ile Asp Asn Asp Ile Tyr Asp Leu Ser			
245	250	255	
aaa aac acg tgg aac tgc aag ttt aac aga tgc att aaa cgc aaa gtc	816		
Lys Asn Thr Trp Asn Cys Lys Phe Asn Arg Cys Ile Lys Arg Lys Val			
260	265	270	
gag cac cga gtc aag aag cgg ccg ccc act tgg cgc cac aac gtt aga	864		
Glu His Arg Val Lys Lys Arg Pro Pro Thr Trp Arg His Asn Val Arg			
275	280	285	
gcc aag tac aca gag gga gac act gcc acc aaa ggc gac ctg atg cat	912		
Ala Lys Tyr Thr Glu Gly Asp Thr Ala Thr Lys Gly Asp Leu Met His			
290	295	300	
att caa gag gag ctg atg tac gaa aac gat ttg ctg aaa atg aac att	960		
Ile Gln Glu Glu Leu Met Tyr Glu Asn Asp Leu Leu Lys Met Asn Ile			
305	310	315	320
gag ctg atg cat gcg cac atc aac aag cta aac aat atg ctg cac gac	1008		
Glu Leu Met His Ala His Ile Asn Lys Leu Asn Asn Met Leu His Asp			
325	330	335	

ctg ata gtc tcc gtg gcc aag gtg gac gag cgt ttg att ggc aat ctc	340	345	350	1056	
Leu Ile Val Ser Val Ala Lys Val Asp Glu Arg Leu Ile Gly Asn Leu					
atg aac aac tct gtt tct tca aca ttt ttg tcg gac gac acg ttt ttg	355	360	365	1104	
Met Asn Asn Ser Val Ser Ser Thr Phe Leu Ser Asp Asp Thr Phe Leu					
ctg atg ccg tgc acc aat ccg ccg gca cac acc agt aat tgc tac aac	370	375	380	1152	
Leu Met Pro Cys Thr Asn Pro Pro Ala His Thr Ser Asn Cys Tyr Asn					
aac agc atc tac aaa gaa ggg cgt tgg gtg gcc aac acg gac tcg tcg	385	390	395	400	1200
Asn Ser Ile Tyr Lys Glu Gly Arg Trp Val Ala Asn Thr Asp Ser Ser					
caa tgc ata gat ttt agc aac tac aag gaa cta gca att gac gac gac	405	410	415	1248	
Gln Cys Ile Asp Phe Ser Asn Tyr Lys Glu Leu Ala Ile Asp Asp Asp					
gtc gag ttt tgg atc ccg acc atc ggc aac acg acc tat cac gac agt	420	425	430	1296	
Val Glu Phe Trp Ile Pro Thr Ile Gly Asn Thr Thr Tyr His Asp Ser					
tgg aaa gat gcc agc ggc tgg tcg ttt att gcc caa caa aaa agc aac	435	440	445	1344	
Trp Lys Asp Ala Ser Gly Trp Ser Phe Ile Ala Gln Gln Lys Ser Asn					
ctc ata acc acc atg gag aac acc aag ttt ggc ggc gtc ggc acc agt	450	455	460	1392	
Leu Ile Thr Thr Met Glu Asn Thr Lys Phe Gly Gly Val Gly Thr Ser					
ctg agc gac atc act tcc atg gct gaa ggc gaa ttg gcc gct aaa ttg	465	470	475	480	1440
Leu Ser Asp Ile Thr Ser Met Ala Glu Gly Glu Leu Ala Ala Lys Leu					
act tcg ttc atg ttt ggt cat gta gtt aac ttt gta att ata tta att				1488	

Thr Ser Phe Met Phe Gly His Val Val Asn Phe Val Ile Ile Leu Ile
 485 490 495

gtg att tta ttt ttg tac tgt atg att aga aac cgt aat aga caa tat 1536
 Val Ile Leu Phe Leu Tyr Cys Met Ile Arg Asn Arg Asn Arg Gln Tyr
 500 505 510

taa 1539

<210> 2

<211> 512

<212> PRT

<213> Baculovirus

<400> 2

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Tyr Lys Ile Lys Asn Leu Asp Ile Thr Pro Pro Lys Glu Thr Leu Gln
 35 40 45

Lys Asp Val Glu Ile Thr Ile Val Glu Thr Asp Tyr Asn Glu Asn Val
 50 55 60

Ile Ile Gly Tyr Lys Gly Tyr Tyr Gln Ala Tyr Ala Tyr Asn Gly Gly
 65 70 75 80

Ser Leu Asp Pro Asn Thr Arg Val Glu Glu Thr Met Lys Thr Leu Asn
 85 90 95

Val Gly Lys Glu Asp Leu Leu Met Trp Ser Ile Arg Gln Gln Cys Glu
 100 105 110

Val Gly Glu Glu Leu Ile Asp Arg Trp Gly Ser Asp Ser Asp Asp Cys
 115 120 125

Phe Arg Asp Asn Glu Gly Arg Gly Gln Trp Val Lys Gly Lys Glu Leu
 130 135 140

Val Lys Arg Gln Asn Asn Asn His Phe Ala His His Thr Cys Asn Lys
 145 150 155 160

Ser Trp Arg Cys Gly Ile Ser Thr Ser Lys Met Tyr Ser Arg Leu Glu
 165 170 175

Cys Gln Asp Asp Thr Asp Glu Cys Gln Val Tyr Ile Leu Asp Ala Glu
 180 185 190

Gly Asn Pro Ile Asn Val Thr Val Asp Thr Val Leu His Arg Asp Gly
 195 200 205

Val Ser Met Ile Leu Lys Gln Lys Ser Thr Phe Thr Thr Arg Gln Ile
 210 215 220

Lys Ala Ala Cys Leu Leu Ile Lys Asp Asp Lys Asn Asn Pro Glu Ser
 225 230 235 240

Val Thr Arg Glu His Cys Leu Ile Asp Asn Asp Ile Tyr Asp Leu Ser
 245 250 255

Lys Asn Thr Trp Asn Cys Lys Phe Asn Arg Cys Ile Lys Arg Lys Val
 260 265 270

Glu His Arg Val Lys Lys Arg Pro Pro Thr Trp Arg His Asn Val Arg
 275 280 285

Ala Lys Tyr Thr Glu Gly Asp Thr Ala Thr Lys Gly Asp Leu Met His
 290 295 300

Ile Gln Glu Glu Leu Met Tyr Glu Asn Asp Leu Leu Lys Met Asn Ile

305	310	315	320
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Glu Leu Met His Ala His Ile Asn Lys Leu Asn Asn Met Leu His Asp			
325	330	335	

Leu Ile Val Ser Val Ala Lys Val Asp Glu Arg Leu Ile Gly Asn Leu			
340	345	350	

Met Asn Asn Ser Val Ser Ser Thr Phe Leu Ser Asp Asp Thr Phe Leu			
355	360	365	

Leu Met Pro Cys Thr Asn Pro Pro Ala His Thr Ser Asn Cys Tyr Asn			
370	375	380	

Asn Ser Ile Tyr Lys Glu Gly Arg Trp Val Ala Asn Thr Asp Ser Ser			
385	390	395	400

Gln Cys Ile Asp Phe Ser Asn Tyr Lys Glu Leu Ala Ile Asp Asp Asp			
405	410	415	

Val Glu Phe Trp Ile Pro Thr Ile Gly Asn Thr Thr Tyr His Asp Ser			
420	425	430	

Trp Lys Asp Ala Ser Gly Trp Ser Phe Ile Ala Gln Gln Lys Ser Asn			
435	440	445	

Leu Ile Thr Thr Met Glu Asn Thr Lys Phe Gly Gly Val Gly Thr Ser			
450	455	460	

Leu Ser Asp Ile Thr Ser Met Ala Glu Gly Glu Leu Ala Ala Lys Leu			
465	470	475	480

Thr Ser Phe Met Phe Gly His Val Val Asn Phe Val Ile Ile Leu Ile			
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 <213> Baculovirus

<220>
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 <222> (1).. (1464)
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tct gcc ttt gcg gcg gag cac tgc aac gcg caa atg aag acg ggt ccg 96
 Ser Ala Phe Ala Ala Glu His Cys Asn Ala Gln Met Lys Thr Gly Pro
 20 25 30

tac aag att aaa aac ttg gac att acc ccg ccc aag gaa acg ctg caa 144
 Tyr Lys Ile Lys Asn Leu Asp Ile Thr Pro Pro Lys Glu Thr Leu Gln
 35 40 45

aag gac gtg gaa atc acc atc gtg gag acg gac tac aac gaa aac gtg 192
 Lys Asp Val Glu Ile Thr Ile Val Glu Thr Asp Tyr Asn Glu Asn Val
 50 55 60

att atc ggc tac aag ggg tac tac cag gcg tat gcg tac aac ggc ggc 240
 Ile Ile Gly Tyr Lys Gly Tyr Tyr Gln Ala Tyr Ala Tyr Asn Gly Gly
 65 70 75 80

tcg ctg gat ccc aac aca cgc gtc gaa gaa acc atg aaa acg ctg aat 288
 Ser Leu Asp Pro Asn Thr Arg Val Glu Glu Thr Met Lys Thr Leu Asn
 85 90 95

gtg ggc aaa gag gat ttg ctt atg tgg agc atc agg cag cag tgc gag	336		
Val Gly Lys Glu Asp Leu Leu Met Trp Ser Ile Arg Gln Gln Cys Glu			
100	105	110	
gtg ggc gaa gag ctg atc gac cgt tgg ggc agt gac agc gac gac tgt	384		
Val Gly Glu Glu Leu Ile Asp Arg Trp Gly Ser Asp Ser Asp Asp Cys			
115	120	125	
ttt cgc gac aac gag ggc cgc ggc cag tgg gtc aaa ggc aaa gag ttg	432		
Phe Arg Asp Asn Glu Gly Arg Gly Gln Trp Val Lys Gly Lys Glu Leu			
130	135	140	
gtg aag cgg cag aat aac aat cac ttt gcg cac cac acg tgc aac aaa	480		
Val Lys Arg Gln Asn Asn Asn His Phe Ala His His Thr Cys Asn Lys			
145	150	155	160
tcg tgg cga tgc ggc att tcc act tcg aaa atg tac agc agg ctc gag	528		
Ser Trp Arg Cys Gly Ile Ser Thr Ser Lys Met Tyr Ser Arg Leu Glu			
165	170	175	
tgc cag gac gac acg gac gag tgc cag gta tac att ttg gac gct gag	576		
Cys Gln Asp Asp Thr Asp Glu Cys Gln Val Tyr Ile Leu Asp Ala Glu			
180	185	190	
ggc aac ccc atc aac gtg acc gtg gac act gtg ctt cat cga gac ggc	624		
Gly Asn Pro Ile Asn Val Thr Val Asp Thr Val Leu His Arg Asp Gly			
195	200	205	
gtg agt atg att ctc aaa caa aag tct acg ttc acc acg cgc caa ata	672		
Val Ser Met Ile Leu Lys Gln Lys Ser Thr Phe Thr Thr Arg Gln Ile			
210	215	220	
aaa gct gcg tgt ctg ctc att aaa gat gac aaa aat aac ccc gag tcg	720		
Lys Ala Ala Cys Leu Leu Ile Lys Asp Asp Lys Asn Asn Pro Glu Ser			
225	230	235	240
gtg aca cgc gaa cac tgt ttg att gac aat gat ata tat gat ctt tct	768		

Val Thr Arg Glu His Cys Leu Ile Asp Asn Asp Ile Tyr Asp Leu Ser			
245	250	255	
aaa aac acg tgg aac tgc aag ttt aac aga tgc att aaa cgc aaa gtc			816
Lys Asn Thr Trp Asn Cys Lys Phe Asn Arg Cys Ile Lys Arg Lys Val			
260	265	270	
gag cac cga gtc aag aag cgg cgg ccc act tgg cgc cac aac gtt aga			864
Glu His Arg Val Lys Lys Arg Pro Pro Thr Trp Arg His Asn Val Arg			
275	280	285	
gcc aag tac aca gag gga gac act gcc acc aaa ggc gac ctg atg cat			912
Ala Lys Tyr Thr Glu Gly Asp Thr Ala Thr Lys Gly Asp Leu Met His			
290	295	300	
att caa gag gag ctg atg tac gaa aac gat ttg ctg aaa atg aac att			960
Ile Gln Glu Glu Leu Met Tyr Glu Asn Asp Leu Leu Lys Met Asn Ile			
305	310	315	320
gag ctg atg cat gcg cac atc aac aag cta aac aat atg ctg cac gac			1008
Glu Leu Met His Ala His Ile Asn Lys Leu Asn Asn Met Leu His Asp			
325	330	335	
ctg ata gtc tcc gtg gcc aag gtg gac gag cgt ttg att ggc aat ctc			1056
Leu Ile Val Ser Val Ala Lys Val Asp Glu Arg Leu Ile Gly Asn Leu			
340	345	350	
atg aac aac tct gtt tct tca aca ttt ttg tcg gac gac acg ttt ttg			1104
Met Asn Asn Ser Val Ser Ser Thr Phe Leu Ser Asp Asp Thr Phe Leu			
355	360	365	
ctg atg ccg tgc acc aat ccg ccg gca cac acc agt aat tgc tac aac			1152
Leu Met Pro Cys Thr Asn Pro Pro Ala His Thr Ser Asn Cys Tyr Asn			
370	375	380	
aac agc atc tac aaa gaa ggg cgt tgg gtg gcc aac acg gac tcg tcg			1200
Asn Ser Ile Tyr Lys Glu Gly Arg Trp Val Ala Asn Thr Asp Ser Ser			

385	390	395	400	
caa tgc ata gat ttt agc aac tac aag gaa cta gca att gac gac gac				1248
Gln Cys Ile Asp Phe Ser Asn Tyr Lys Glu Leu Ala Ile Asp Asp Asp				
405	410		415	
gtc gag ttt tgg atc ccg acc atc ggc aac acg acc tat cac gac agt				1296
Val Glu Phe Trp Ile Pro Thr Ile Gly Asn Thr Thr Tyr His Asp Ser				
420	425		430	
tgg aaa gat gcc agc ggc tgg tcg ttt att gcc caa caa aaa agc aac				1344
Trp Lys Asp Ala Ser Gly Trp Ser Phe Ile Ala Gln Gln Lys Ser Asn				
435	440		445	
ctc ata acc acc atg gag aac acc aag ttt ggc ggc gtc ggc acc agt				1392
Leu Ile Thr Thr Met Glu Asn Thr Lys Phe Gly Gly Val Gly Thr Ser				
450	455		460	
ctg agc gac atc act tcc atg gct gaa ggc gaa ttg gcc gct aaa ttg				1440
Leu Ser Asp Ile Thr Ser Met Ala Glu Gly Glu Leu Ala Ala Lys Leu				
465	470	475	480	
act tcg ttc atg ttt ggt cat gta				1464
Thr Ser Phe Met Phe Gly His Val				
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 <213> Baculovirus

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20

25

30

Tyr Lys Ile Lys Asn Leu Asp Ile Thr Pro Pro Lys Glu Thr Leu Gln
 35 40 45

Lys Asp Val Glu Ile Thr Ile Val Glu Thr Asp Tyr Asn Glu Asn Val
 50 55 60

Ile Ile Gly Tyr Lys Gly Tyr Tyr Gln Ala Tyr Ala Tyr Asn Gly Gly
 65 70 75 80

Ser Leu Asp Pro Asn Thr Arg Val Glu Glu Thr Met Lys Thr Leu Asn
 85 90 95

Val Gly Lys Glu Asp Leu Leu Met Trp Ser Ile Arg Gln Gln Cys Glu
 100 105 110

Val Gly Glu Glu Leu Ile Asp Arg Trp Gly Ser Asp Ser Asp Asp Cys
 115 120 125

Phe Arg Asp Asn Glu Gly Arg Gly Gln Trp Val Lys Gly Lys Glu Leu
 130 135 140

Val Lys Arg Gln Asn Asn Asn His Phe Ala His His Thr Cys Asn Lys
 145 150 155 160

Ser Trp Arg Cys Gly Ile Ser Thr Ser Lys Met Tyr Ser Arg Leu Glu
 165 170 175

Cys Gln Asp Asp Thr Asp Glu Cys Gln Val Tyr Ile Leu Asp Ala Glu
 180 185 190

Gly Asn Pro Ile Asn Val Thr Val Asp Thr Val Leu His Arg Asp Gly
 195 200 205

Val Ser Met Ile Leu Lys Gln Lys Ser Thr Phe Thr Thr Arg Gln Ile
 210 215 220

Lys	Ala	Ala	Cys	Leu	Leu	Ile	Lys	Asp	Asp	Lys	Asn	Asn	Pro	Glu	Ser
225			230			235							240		
Val	Thr	Arg	Glu	His	Cys	Leu	Ile	Asp	Asn	Asp	Ile	Tyr	Asp	Leu	Ser
	245					250						255			
Lys	Asn	Thr	Trp	Asn	Cys	Lys	Phe	Asn	Arg	Cys	Ile	Lys	Arg	Lys	Val
	260					265					270				
Glu	His	Arg	Val	Lys	Lys	Arg	Pro	Pro	Thr	Trp	Arg	His	Asn	Val	Arg
	275					280					285				
Ala	Lys	Tyr	Thr	Glu	Gly	Asp	Thr	Ala	Thr	Lys	Gly	Asp	Leu	Met	His
	290			295			300								
Ile	Gln	Glu	Glu	Leu	Met	Tyr	Glu	Asn	Asp	Leu	Leu	Lys	Met	Asn	Ile
	305			310			315						320		
Glu	Leu	Met	His	Ala	His	Ile	Asn	Lys	Leu	Asn	Asn	Met	Leu	His	Asp
	325					330						335			
Leu	Ile	Val	Ser	Val	Ala	Lys	Val	Asp	Glu	Arg	Leu	Ile	Gly	Asn	Leu
	340			345			350								
Met	Asn	Asn	Ser	Val	Ser	Ser	Thr	Phe	Leu	Ser	Asp	Asp	Thr	Phe	Leu
	355					360					365				
Leu	Met	Pro	Cys	Thr	Asn	Pro	Pro	Ala	His	Thr	Ser	Asn	Cys	Tyr	Asn
	370			375			380								
Asn	Ser	Ile	Tyr	Lys	Glu	Gly	Arg	Trp	Val	Ala	Asn	Thr	Asp	Ser	Ser
	385			390			395						400		
Gln	Cys	Ile	Asp	Phe	Ser	Asn	Tyr	Lys	Glu	Leu	Ala	Ile	Asp	Asp	Asp
	405					410						415			

Val Glu Phe Trp Ile Pro Thr Ile Gly Asn Thr Thr Tyr His Asp Ser
 420 425 430

Trp Lys Asp Ala Ser Gly Trp Ser Phe Ile Ala Gln Gln Lys Ser Asn
 435 440 445

Leu Ile Thr Thr Met Glu Asn Thr Lys Phe Gly Gly Val Gly Thr Ser
 450 455 460

Leu Ser Asp Ile Thr Ser Met Ala Glu Gly Glu Leu Ala Ala Lys Leu
 465 470 475 480

Thr Ser Phe Met Phe Gly His Val
 485

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<212> DNA

<213> Artificial

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<210> 6

<211> 33

<212> DNA

<213> Artificial

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taatacgact cactata 17

<210> 8
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<212> DNA
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<220>
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<400> 8
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<210> 9
<211> 1486
<212> DNA
<213> Baculovirus

<220>
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<222> (2).. (1474)

<400> 9

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Asn Ser Thr Met Val Ser Ala Ile Val Leu Tyr Val Leu Leu Ala Ala

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gcg gcg cat tct gcc ttt gcg gcg gag cac tgc aac gcg caa atg aag 97

Ala Ala His Ser Ala Phe Ala Ala Glu His Cys Asn Ala Gln Met Lys

20 25 30

acg ggt ccg tac aag att aac aac ttg gac att acc ccg ccc aag gaa 145

Thr Gly Pro Tyr Lys Ile Lys Asn Leu Asp Ile Thr Pro Pro Lys Glu

35 40 45

acg ctg caa aag gac gtg gaa atc acc atc gtg gag acg gac tac aac 193

Thr Leu Gln Lys Asp Val Glu Ile Thr Ile Val Glu Thr Asp Tyr Asn

50 55 60

gaa aac gtg att atc ggc tac aag ggg tac tac cag gcg tat gcg tac 241

Glu Asn Val Ile Ile Gly Tyr Lys Gly Tyr Tyr Gln Ala Tyr Ala Tyr

65 70 75 80

aac ggc ggc tcg ctg gat ccc aac aca cgc gtc gaa gaa acc atg aaa 289

Asn Gly Gly Ser Leu Asp Pro Asn Thr Arg Val Glu Glu Thr Met Lys

85 90 95

acg ctg aat gtg ggc aaa gag gat ttg ctt atg tgg agc atc agg cag 337

Thr Leu Asn Val Gly Lys Glu Asp Leu Leu Met Trp Ser Ile Arg Gln

100 105 110

cag tgc gag gtg ggc gaa gag ctg atc gac cgt tgg ggc agt gac agc 385

Gln Cys Glu Val Gly Glu Glu Leu Ile Asp Arg Trp Gly Ser Asp Ser

115 120 125

gac gac tgt ttt cgc gac aac gag ggc cgc ggc cag tgg gtc aaa ggc 433

Asp Asp Cys Phe Arg Asp Asn Glu Gly Arg Gly Gln Trp Val Lys Gly

130 135 140

aaa gag ttg gtg aag cgg cag aat aac aat cac ttt gcg cac cac acg	481
Lys Glu Leu Val Lys Arg Gln Asn Asn Asn His Phe Ala His His Thr	
145 150 155 160	
tgc aac aaa tcg tgg cga tgc ggc att tcc act tcg aaa atg tac acg	529
Cys Asn Lys Ser Trp Arg Cys Gly Ile Ser Thr Ser Lys Met Tyr Ser	
165 170 175	
agg ctc gag tgc cag gac gac acg gag tgc cag gta tac att ttg	577
Arg Leu Glu Cys Gln Asp Asp Thr Asp Glu Cys Gln Val Tyr Ile Leu	
180 185 190	
gac gct gag ggc aac ccc atc aac gtc acc gtc gac act gtc ctt cat	625
Asp Ala Glu Gly Asn Pro Ile Asn Val Thr Val Asp Thr Val Leu His	
195 200 205	
cga gac ggc gtc agt atg att ctc aaa caa aag tct acg ttc acc acg	673
Arg Asp Gly Val Ser Met Ile Leu Lys Gln Lys Ser Thr Phe Thr Thr	
210 215 220	
cgc caa ata aaa gct gcg tgt ctg ctc att aaa gat gac aaa aat aac	721
Arg Gln Ile Lys Ala Ala Cys Leu Leu Ile Lys Asp Asp Lys Asn Asn	
225 230 235 240	
ccc gag tcg gtc aca cgc gaa cac tgt ttg att gac aat gat ata tat	769
Pro Glu Ser Val Thr Arg Glu His Cys Leu Ile Asp Asn Asp Ile Tyr	
245 250 255	
gat ctt tct aaa aac acg tgg aac tgc aag ttt aac aga tgc att aaa	817
Asp Leu Ser Lys Asn Thr Trp Asn Cys Lys Phe Asn Arg Cys Ile Lys	
260 265 270	
cgc aaa gtc gag cac cga gtc aag aag cgg ccg ccc act tgg cgc cac	865
Arg Lys Val Glu His Arg Val Lys Lys Arg Pro Pro Thr Trp Arg His	
275 280 285	

aac gtt aga gcc aag tac aca gag gga gac act gcc acc aaa ggc gac			913
Asn Val Arg Ala Lys Tyr Thr Glu Gly Asp Thr Ala Thr Lys Gly Asp			
290	295	300	
ctg atg cat att caa gag gag ctg atg tac gaa aac gat ttg ctg aaa			961
Leu Met His Ile Gln Glu Glu Leu Met Tyr Glu Asn Asp Leu Leu Lys			
305	310	315	320
atg aac att gag ctg atg cat gcg cac atc aac aag cta aac aat atg			1009
Met Asn Ile Glu Leu Met His Ala His Ile Asn Lys Leu Asn Asn Met			
325	330	335	
ctg cac gac ctg ata gtc tcc gtg gcc aag gtg gac gag cgt ttg att			1057
Leu His Asp Leu Ile Val Ser Val Ala Lys Val Asp Glu Arg Leu Ile			
340	345	350	
ggc aat ctc atg aac aac tct gtt tct tca aca ttt ttg tcg gac gac			1105
Gly Asn Leu Met Asn Asn Ser Val Ser Ser Thr Phe Leu Ser Asp Asp			
355	360	365	
acg ttt ttg ctg atg ccg tgc acc aat ccg ccg gca cac acc agt aat			1153
Thr Phe Leu Leu Met Pro Cys Thr Asn Pro Pro Ala His Thr Ser Asn			
370	375	380	
tgc tac aac aac agc atc tac aaa gaa ggg cgt tgg gtg gcc aac acg			1201
Cys Tyr Asn Asn Ser Ile Tyr Lys Glu Gly Arg Trp Val Ala Asn Thr			
385	390	395	400
gac tcg tcg caa tgc ata gat ttt agc aac tac aag gaa cta gca att			1249
Asp Ser Ser Gln Cys Ile Asp Phe Ser Asn Tyr Lys Glu Leu Ala Ile			
405	410	415	
gac gac gac gtc gag ttt tgg atc ccg acc atc ggc aac acg acc tat			1297
Asp Asp Asp Val Glu Phe Trp Ile Pro Thr Ile Gly Asn Thr Thr Tyr			
420	425	430	
cac gac agt tgg aaa gat gcc agc ggc tgg tcg ttt att gcc caa caa			1345

His Asp Ser Trp Lys Asp Ala Ser Gly Trp Ser Phe Ile Ala Gln Gln
 435 440 445

aaa agc aac ctc ata acc acc atg gag aac acc aag ttt ggc ggc gtc 1393
 Lys Ser Asn Leu Ile Thr Thr Met Glu Asn Thr Lys Phe Gly Gly Val
 450 455 460

ggc acc agt ctg agc gac atc act tcc atg gct gaa ggc gaa ttg gcc 1441
 Gly Thr Ser Leu Ser Asp Ile Thr Ser Met Ala Glu Gly Glu Leu Ala
 465 470 475 480

gct aaa ttg act tcg ttc atg ttt ggt cat gta taatgagaat tc 1486
 Ala Lys Leu Thr Ser Phe Met Phe Gly His Val
 485 490

<210> 10

<211> 491

<212> PRT

<213> Baculovirus

<400> 10

Asn Ser Thr Met Val Ser Ala Ile Val Leu Tyr Val Leu Leu Ala Ala
 1 5 10 15

Ala Ala His Ser Ala Phe Ala Ala Glu His Cys Asn Ala Gln Met Lys
 20 25 30

Thr Gly Pro Tyr Lys Ile Lys Asn Leu Asp Ile Thr Pro Pro Lys Glu
 35 40 45

Thr Leu Gln Lys Asp Val Glu Ile Thr Ile Val Glu Thr Asp Tyr Asn
 50 55 60

Glu Asn Val Ile Ile Gly Tyr Lys Gly Tyr Tyr Gln Ala Tyr Ala Tyr
65 70 75 80

Asn Gly Gly Ser Leu Asp Pro Asn Thr Arg Val Glu Glu Thr Met Lys
85 90 95

Thr Leu Asn Val Gly Lys Glu Asp Leu Leu Met Trp Ser Ile Arg Gln
100 105 110

Gln Cys Glu Val Gly Glu Glu Leu Ile Asp Arg Trp Gly Ser Asp Ser
115 120 125

Asp Asp Cys Phe Arg Asp Asn Glu Gly Arg Gly Gln Trp Val Lys Gly
130 135 140

Lys Glu Leu Val Lys Arg Gln Asn Asn Asn His Phe Ala His His Thr
145 150 155 160

Cys Asn Lys Ser Trp Arg Cys Gly Ile Ser Thr Ser Lys Met Tyr Ser
165 170 175

Arg Leu Glu Cys Gln Asp Asp Thr Asp Glu Cys Gln Val Tyr Ile Leu
180 185 190

Asp Ala Glu Gly Asn Pro Ile Asn Val Thr Val Asp Thr Val Leu His
195 200 205

Arg Asp Gly Val Ser Met Ile Leu Lys Gln Lys Ser Thr Phe Thr Thr
210 215 220

Arg Gln Ile Lys Ala Ala Cys Leu Leu Ile Lys Asp Asp Lys Asn Asn
225 230 235 240

Pro Glu Ser Val Thr Arg Glu His Cys Leu Ile Asp Asn Asp Ile Tyr
245 250 255

Asp Leu Ser Lys Asn Thr Trp Asn Cys Lys Phe Asn Arg Cys Ile Lys
260 265 270

Arg Lys Val Glu His Arg Val Lys Lys Arg Pro Pro Thr Trp Arg His
275 280 285

Asn Val Arg Ala Lys Tyr Thr Glu Gly Asp Thr Ala Thr Lys Gly Asp
290 295 300

Leu Met His Ile Gln Glu Glu Leu Met Tyr Glu Asn Asp Leu Leu Lys
305 310 315 320

Met Asn Ile Glu Leu Met His Ala His Ile Asn Lys Leu Asn Asn Met
325 330 335

Leu His Asp Leu Ile Val Ser Val Ala Lys Val Asp Glu Arg Leu Ile
340 345 350

Gly Asn Leu Met Asn Asn Ser Val Ser Ser Thr Phe Leu Ser Asp Asp
355 360 365

Thr Phe Leu Leu Met Pro Cys Thr Asn Pro Pro Ala His Thr Ser Asn
370 375 380

Cys Tyr Asn Asn Ser Ile Tyr Lys Glu Gly Arg Trp Val Ala Asn Thr
385 390 395 400

Asp Ser Ser Gln Cys Ile Asp Phe Ser Asn Tyr Lys Glu Leu Ala Ile
405 410 415

Asp Asp Asp Val Glu Phe Trp Ile Pro Thr Ile Gly Asn Thr Thr Tyr
420 425 430

His Asp Ser Trp Lys Asp Ala Ser Gly Trp Ser Phe Ile Ala Gln Gln
435 440 445

Lys Ser Asn Leu Ile Thr Thr Met Glu Asn Thr Lys Phe Gly Gly Val
450 455 460

Gly Thr Ser Leu Ser Asp Ile Thr Ser Met Ala Glu Gly Glu Leu Ala
465 470 475 480

Ala Lys Leu Thr Ser Phe Met Phe Gly His Val
485 490